CLAIMS:

1.   An apparatus (100) for wirelessly
communicating a leading bit string comprising a
header and a body, and a trailing bit string
comprising a header and a body (340), the apparatus
comprising:
          an encoder (104) configured for encoding data
(332) to form the body of the leading bit string,
and forming the header (320) of the trailing bit
string to include at least one bit of a parameter to
be used by a receiver (112) in decoding the encoded
data (356); and
          a transmitter (108) configured for transmitting
to the receiver a wireless signal representing at
the receiver (112) the leading bit string and then
the trailing bit string.

2.   The apparatus of claim 1, wherein the
receiver (112) comprises a digital television
receiver.

3.   The apparatus of claim 1, wherein said
encoder (104) is further configured for creating
said bit strings so that a parameter in at least one
of the leading and trailing bit string headers is
utilizable by an equalizer (156) in said receiver
(112) to resolve a signal that embodies at least one
of the leading and trailing bit strings (352).

4.   The apparatus of claim 1, wherein said
parameter is one of a plurality of parameters having
bits, the plural bits being divided into two bit
groups each having an equal number of bits, one of
said groups being utilized in forming the leading
bit string header (324), the other group being
utilized in forming the trailing bit string header
(324), each of said groups further comprising a
parity bit generated based on the bits of equal
number of the group.

5.   An apparatus (100) for wirelessly
transmitting a bit-stream comprising:
        an encoder (104) configured for applying a
fixed code to encode bits of the bit-stream, one-by-
one, to create an encoded bit-stream (132, 320); and
        a transmitter (108) configured for modulating
(136) the encoded bit-stream to produce a signal
whose frequency range at any given time is
predetermined independently of the code (340), and
for wirelessly transmitting (140) said signal within
the frequency range.

6.   The apparatus of claim 5, wherein the
fixed code (308) comprises a linear recursive
sequence.

7.   The apparatus of claim 6, wherein the
fixed code (308) is "0001111101011001".

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8.   The apparatus of claim 6, wherein the encoder further comprises a sequence generator (200) that includes:

a four-element shift register (204), the first element (208) having an input terminal (232) and the fourth element (220) having an output terminal (228); and

an exclusive-OR (XOR) gate tap (224) disposed between the third (216) and fourth (220) elements, wherein said output terminal is connected to feed back to the first element and to the XOR gate tap.

9.   The apparatus of claim 5, wherein said bit-stream before encoding is a parameter bit-stream (316) and said bits define a parameter in the header of a bit string comprising a header and a body (324), said encoder being further configured for encoding a data bit-stream (328) and for combining the parameter and data bit-streams, after the parameter and data bit-streams have been encoded, to create said encoded bit-stream (324, 336) that is modulated (136, 340) to produce said signal whose frequency range at any given time is predetermined independently of the code, the parameter being defined so as to be utilizable by an equalizer (136, 352) configured to receive and to resolve said signal, the equalizer being part of a receiver (112) configured for decoding the encoded data bit-stream from said body (116, 356).

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10.   The apparatus of claim 5, wherein:

said encoder (104) is further configured for
encoding data to form the body of a leading bit
string comprising a header and a body (336), and for
forming the header of a trailing bit string
comprising a header and a body (324) so that the
trailing bit string header includes at least one bit
that represents a parameter defined by said bits and
to be used by a receiver (112) in decoding the data
encoded to form the leading bit string body (116,
356), the encoder being further configured for
combining (324, 336) the encoded data and said at
least one bit in forming said encoded bit-stream to
be modulated (136, 340); and

said transmitter (108) is further configured
for transmitting to the receiver by means of said
signal the leading bit string and then the trailing
bit string (340).

11.   The apparatus of claim 10, wherein the
bit-by-bit encoding of said bits is performed one
bit at a time (320), the data to be encoded in
forming said body of the leading bit string not
being encoded one bit at a time using a fixed code
(332).

12.   A method (300) for wirelessly
communicating a leading bit string comprising a
header and a body, and a trailing data string

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comprising a header and a body, the method
comprising the steps of:

encoding data (120, 332);

forming the body of the leading bit string from
the encoded data (336);

forming the header of the trailing bit string
to include at least one bit of a parameter. to be
used by a receiver in decoding the encoded data
(324); and

transmitting to the receiver a wireless signal
representing at the receiver the leading bit string
and then the trailing bit string (340).

13. The method of claim 12, wherein the
receiver (112, 344) comprises a digital television
receiver.

14. The method of claim 12, further comprising
the step of utilizing, by an equalizer (156) in said
receiver, a parameter in at least one of the leading
and trailing bit string headers to resolve a signal
that embodies at least one of the leading and
trailing bit strings (340, 352).

15. The method of claim 1, wherein said
parameter is one of a plurality of parameters having
bits, the forming step further comprising the steps
of:

dividing the plural bits into two bit groups
each having an equal number of bits (324);

generating a parity bit for each group, both
parity bits being generated based on the bits of
equal number of the group;

utilizing one of said groups in forming the
leading bit string header (324); and

utilizing the other group in forming the
trailing bit string header (324).

16.   A method for wirelessly transmitting a
bit-stream (140) comprising the steps of:

determining a fixed code (308);

applying the fixed code to encode bits of the
bit-stream, one-by-one, to create an encoded bit-
stream (320);

modulating the encoded bit-stream to produce a
signal whose frequency range at any given time is
predetermined independently of the code (340); and

wirelessly transmitting said signal within the
frequency range (140, 344).

17.   The method of claim 16, wherein the fixed
code (308) comprises a linear recursive sequence.

18.   The method of claim 17, wherein the fixed
code (308) is "0001111101011001".

19.   The method of claim 17, further comprising
the steps of:

providing a four-element shift register (204),
the first element (208) having an input terminal

(232) and the fourth element (220) having an output terminal (228) ;

disposing an exclusive-OR (XOR) gate tap (224) between the third (216) and fourth (220) elements; and

connecting said output terminal to feed back to the first element and to the XOR gate tap.

20. The method of claim 16, wherein said bit-stream before encoding is a parameter bit-stream (316), said method further comprising the steps of:

forming said parameter bit-stream to contain a parameter that said bits define (316);

combining the parameter bit-stream with a data bit-stream, after the parameter and data bit-streams have been encoded (324, 336), to create said encoded bit-stream that is modulated to produce said signal whose frequency range at any given time is predetermined independently of the code (340);

configuring a bit string to comprise a header and a body, the header containing the encoded parameter and the body containing the encoded data bit-stream (324, 336); and

performing the forming, combining and configuring steps so that the parameter is utilizable by an equalizer that is to receive and to resolve said signal (352) and that is part of a receiver(112)for decoding the encoded data bit-stream (356).

21. The method of claim 16, further comprising the steps of:

encoding data (332) to form the body of a leading bit stream comprising a header and body (336);

forming the header of a trailing bit stream, comprising a header and a body (324), to include at least one bit that represents a parameter defined by said bits and to be used by a receiver in decoding the data encoded to form the leading bit string body (356);

combining (324, 336) the encoded and said at least one bit in forming said encoded bit-stream to be modulated (340); and

transmitting to the receiver by means of said signal the leading bit string and then the trailing bit string (140).

22. The method of claim 21, wherein the bit-by-bit encoding of said bits is performed one bit at a time (320), the data to be encoded in forming said body of the leading bit stream not being encoded one bit at a time using a fixed code (332).